

### REMARKS

The foregoing amendments to the specification and claims are submitted in response to the current non-final Office action, withdrawing and replacing the previous Final Office action dated Sept. 16, 2002. The amendments now submitted adopt the suggestions of the Examiner and take into account the comments as set forth in the current Office action, in an effort to promptly place the application in condition for allowance as hereinafter pointed out.

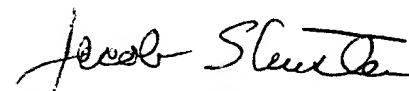
Page 1 of the specification is now amended so as to include dictionary definition wording in regard to "infusion" and "in-situ", as referred to on page 3 of the current Office action so as to avoid the objections stated in regard thereto under 35 U.S.C. 112, first paragraph. All of the previous claims in the case, including claims 2, 9, 12-14 and 16 have been cancelled in favor of new claims 17-20 which basically embody all limitations in the version of claims 2, 9, 12, 13 and 14 with suggested changes as set forth on pages 5 and 6 of the current Office action. The other objections under 35 U.S.C. 112, first paragraph as indicated on pages 2 and 3 of the Office action are therefore also avoided. New claims 17, 18, 19 and 20 furthermore emphasize the patentability of the present invention covered therein, as hereinafter pointed out.

Claims 17, 18, 19 and 20, which respectively correspond to the cancelled claims (2), (9), (12), (13) and (14-16), patentably distinguish over the disclosure in the Licht patent of record, solely relied on to reject the cancelled claims under 35 U.S.C. 103(a). As conceded on pages 7 and 8 of the current Office action, the Licht patent does not teach introducing the fire-resisting agent into the barrier by infusion after its formation, and bonding of the barrier to the substrate without use of adhesive within the sequence of fabrication steps as set forth in claims 17-20. In view of such conceded inadequacy of the Licht patent, the Examiner therefore resorts to speculation rather than explicit prior art reference teachings to conclude that an obvious variation is involved. In support of such speculative reasoning, a 1959 decision of the Board of Appeal in

Ex parte Rubin, 128 USPQ 440 is relied on to negate unobviousness. Aside from the significantly different "double-patenting" situation involved in the Ex parte Rubin case, the Examiner overlooks the more recent and relevant case law applicable hereto, as referred to in Section 2143.03 M.P.E.P., which requires explicit teachings in cited prior art references with respect to claim limitations not disclosed in the Licht patent.

In view of the foregoing, an allowance of claims 17, 18, 19 and 20 is believed to be in order.

Respectfully submitted,



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**MARKED UP VERSION OF AMENDMENTS**

**TO THE SPECIFICATION**

Please replace the paragraph numbered [0002] on page 1 with the following paragraph:

[0002] Composite structures having a substrate made of a structural material such as glass/vinyl ester are presently utilized for shipboard use. Because of flammability concerns in regard to such structures, passive fire protection has been proposed involving attachment of insulation blankets by means of self tapping screws. Installation of such fire protection for composite structures is both labor intensive and costly, especially in Naval shipboard types of seawater environments. It is therefore an important object of the present invention to provide less costly and less labor intensive fire protection for the foregoing referred to types of composite structures.

Please replace the paragraph numbered [0003] on page 1 with the following paragraph:

[0003] In accordance with the present invention, during fabrication of a composite structure having a solid substrate made of a preferred shipboard material such as glass/vinyl ester or a sandwich type substrate, a protective barrier layer is applied to such substrate with a fire resisting agent such as phenolic resin, water or an oil-based intumescent coating. According to certain embodiments, the barrier layer in its position or place is permeated or infused in situ with the phenolic resin before attachment by adhesive bonding to the substrate. According to other embodiments, the substrate is formed at the same time the barrier layer is infused with the phenolic resin so that it attaches the barrier layer to the substrate without use of adhesive.

**MARKED-UP VERSION OF AMENDMENTS**

**TO THE CLAIMS**

Cancel claims 1-16 without prejudice and replace by the following claims:

17. In a process for protective fabrication of a composite structure to be exposed to seawater environments, the improvement residing in a sequence of steps including: a) forming a barrier; b) introducing a fire resisting agent into the barrier after said forming thereof; c) forming a substrate; and d) attaching the barrier to the substrate in underlying relation thereto before completing the fabrication of the composite structure; wherein said introducing of the fire resisting agent comprises: infusion into the barrier.
18. In a process for protective fabrication of a composite structure to be exposed to seawater environments, the improvement residing in a sequence of steps including: a) forming a barrier; b) introducing a fire resisting agent into the barrier after said forming thereof; c) forming a substrate; and d) attaching the barrier to the substrate in underlying relation thereto before completing the fabrication of the composite structure; wherein the barrier is an intumescent mat and the fire resisting agent is a phenolic resin.
19. In a process for protective fabrication of a composite structure to be exposed to seawater environments, the improvement residing in a sequence of steps including: a) forming a barrier; b) introducing a fire resisting agent into the barrier after said forming thereof; c) forming a substrate; and d) attaching the barrier to the substrate in underlying relation thereto before completing the

fabrication of the composite structure; wherein said attaching of the barrier to the substrate is performed by providing an adhesive between the barrier and the substrate.

20. In a process for protective fabrication of a composite structure to be exposed to seawater environments, the improvement residing in a sequence of steps including: a) forming a barrier; b) introducing a fire resisting agent into the barrier after said forming thereof; c) forming a substrate; and d) attaching the barrier to the substrate in underlying relation thereto before completing the fabrication of the composite structure; wherein said introducing of the fire resisting agent is performed by infusion thereof into the barrier during said forming of the substrate to effect said attaching of the barrier to the substrate without using an adhesive.